Amendments to the Claims:

The following listing of claims replaces all prior versions and listings of the claims in this application.

Listing of the Claims

1. (Previously Presented) A method for proliferating cardiomyocytes comprising: introducing a D-type cyclin and a cyclin dependent kinase into the nucleus of cardiomyocytes, and cultivating or holding said cells, wherein said cyclin dependent kinase is CDK4 or CDK6.

2. (Previously Presented) A method for proliferating cardiomyocytes comprising: adding nucleotide sequences coding for a nuclear localization signal to at least one D-type cyclin gene and a cyclin dependent kinase gene; and introducing each of said genes to cardiomyocytes *in vitro*, and then cultivating said cells, or introducing each of said genes directly to cardiomyocytes *in vivo*, wherein said cyclin dependent kinase is CDK4 or CDK6.

3. (Canceled)

4. (Currently amended) The method of claim 1 ~~or 2~~, wherein said cyclin dependent kinase is activated by a mammalian cyclin.

5. (Canceled)

6. (Previously Presented) The method of claim 2, wherein said cyclin gene and said cyclin dependent kinase gene are transferred to the cardiomyocytes using an adenovirus vector.

7. (Withdrawn) A recombinant vector comprising a cyclin gene comprising a nucleotide sequence coding for a nuclear localization signal.

8. (Withdrawn) A recombinant vector comprising a cyclin gene and a cyclin dependent kinase gene, wherein at least one of said genes is attached with a nucleotide sequence coding for a nuclear localization signal.

9. (Withdrawn) The recombinant vector of claim 7 or 8, wherein said cyclin is a cyclin that is capable of activating a mammalian CDK4 or CDK6.

10. (Withdrawn) The recombinant vector of claim 7 or 8, wherein said cyclin dependent kinase is a cyclin dependent kinase that is activated by cyclin D1, D2, or D3.

11. (Withdrawn) The recombinant vector of claim 7 or 8, further comprising an adenovirus vector.

12. (Withdrawn) An isolated mammalian cell or tissue that was proliferated by the method of claim 1 or 2.

13. (Withdrawn) A pharmaceutical composition for proliferating terminal differentiated cells or tissues, comprising an effective amount of the recombinant vector of claim 7, 8, or 15.

14. (Withdrawn) A method for treating cardiopathy in a human patient comprising introducing the pharmaceutical composition of claim 13 into the myocardium of the patient, and proliferating a cardiomyocite in the patient.

15. (Withdrawn) A recombinant vector comprising a cyclin dependent kinase gene comprising a nucleotide coding for a nuclear localization signal.

16. (Previously Presented) The method of claim 2, wherein said genes comprising said nucleotide sequences are introduced to the cardiomyocytes *in vitro*, and cultivating said cells.

17. (Previously Presented) The method of claim 2, wherein said genes comprising said nucleotide sequences are introduced to the cardiomyocytes *in vivo*.

18. (Previously Presented) The method of claim 1 or 2, wherein said cyclin activates CDK4.

19. (Previously Presented) The method of claim 1 or 2, wherein said cyclin activates CDK6

20. (New) The method of claim 2, wherein said cyclin dependent kinase is activated by a mammalian cyclin.

21. (New) The method of claim 4, wherein the mammalian cyclin is D1, D2, or D3.

22. (New) The method of claim 20, wherein the mammalian cyclin is D1, D2, or D3.

23. (New) The method of claim 1, wherein the cyclin dependent kinase is CDK4.

24. (New) The method of claim 1, wherein the D-type cyclin is D1.

25. (New) The method of claim 16, wherein the cyclin dependent kinase is CDK4.

26. (New) The method of claim 16, wherein the D-type cyclin is D1.

27. (New) The method of claim 16, wherein the cyclin dependent kinase is CDK4 and the D-type cyclin is D1.

28. (New) The method of claim 17, wherein the cyclin dependent kinase is CDK4.

29. (New) The method of claim 17, wherein the D-type cyclin is D1.

30. (New) The method of claim 17, wherein the cyclin dependent kinase is CDK4 and the D-type cyclin is D1.

31. (New) The method of claim 17, wherein the D-type cyclin and cyclin dependent kinase are transferred to the cardiomyocytes using a viral vector